In the Claims:

1-6. (Canceled)

7. (Previously Presented) A mixture comprising fragment ions derived by fragmentation of the same analyte labeled with two or more different isobaric labels, wherein ions of the labeled analytes were selected for fragmentation and further analysis in a tandem mass spectrometer, and wherein at least two of the labeled analytes are compounds of a formula selected from the group consisting of:

wherein the fragment ions are either positively or negatively charged.

- 8. (Original) The mixture of claim 7, wherein the analyte is a peptide.
- 9. (Original) The mixture of claim 7, wherein the analyte is a protein.
- 10. (Original) The mixture of claim 7, wherein the analyte is a nucleic acid.
- 11. (Original) The mixture of claim 7, wherein the analyte is a carbohydrate, lipid or steroid.
- 12. (Original) The mixture of claim 7, wherein the analyte is a small molecule with a molecular weight of less than 1500 daltons.

- 13. (Original) The mixture of claim 7, wherein the fragmentation and further analysis produces at least two signature ions of the molecular formula selected from the group consisting of: $^{13}\text{CC}_5\text{H}_{13}\text{N}_2^+$, $^{13}\text{CC}_5\text{H}_{13}^{15}\text{NN}^+$, $^{13}\text{C}_2\text{C}_4\text{H}_{13}^{15}\text{NN}^+$ and $^{13}\text{C}_3\text{C}_3\text{H}_{13}^{15}\text{NN}^+$.
- 14. (Previously Presented) A mixture comprising fragment ions derived by fragmentation of the same analyte labeled with two or more different isobaric labels, wherein ions of the labeled analytes were selected for fragmentation and further analysis in a mass spectrometer, and wherein at least two of the labeled analytes are compounds of a formula selected from the group consisting of:

$$H_3C-N$$
 $N^{-13}C$
Analyte
 H_3C-N
 $I_{13}C-A_{13}C$
Analyte
 $I_{13}C-A_{13}C$
Analyte
 $I_{13}C-A_{13}C$
 $I_{13}C-A_{13}C$
Analyte

wherein the fragment ions are either positively or negatively charged.

- 15. (Previously Presented) The mixture of claim 14, wherein the analyte is a peptide.
- 16. (Previously Presented) The mixture of claim 14, wherein the analyte is a protein.
- 17. (Previously Presented) The mixture of claim 14, wherein the analyte is a nucleic acid.
- 18. (Previously Presented) The mixture of claim 14, wherein the analyte is a carbohydrate, lipid or steroid.

- 19. (Previously Presented) The mixture of claim 14, wherein the analyte is a small molecule with a molecular weight of less than 1500 daltons.
- 20. (Previously Presented) The mixture of claim 14, wherein the fragmentation and further analysis produces at least two signature ions of the molecular formula selected from the group consisting of: ${}^{13}\text{CC}_5\text{H}_{13}\text{N}_2^+$, ${}^{13}\text{CC}_5\text{H}_{13}{}^{15}\text{NN}^+$, ${}^{13}\text{C}_2\text{C}_4\text{H}_{13}{}^{15}\text{NN}^+$ and ${}^{13}\text{C}_3\text{C}_3\text{H}_{13}{}^{15}\text{NN}^+$.